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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,611	06/15/2005	Anne Thenaisie	263414US41PCT	7959
22850	7590	12/19/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			VERDIER, CHRISTOPHER M	
			ART UNIT	PAPER NUMBER

3745

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/517,611	Applicant(s) THENAISIE ET AL.	
	Examiner Christopher Verdier	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2-10-05</u> . | 6) <input type="checkbox"/> Other: _____ |

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Receipt and entry of Applicants' Preliminary Amendment dated December 22, 2004 is acknowledged.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. New claim 5, line 6 recites that the hollowed out portions are "at least on a lateral edge situated on a lateral edge situated on a concave side of the blade". The underlined phrase "at least" would include portions that do not have support in the original specification, such as on the upstream and downstream end zones, and thus adds new matter. It is suggested that "at least" be deleted.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bussonnet 5,820,347 in view of Schoenborn 3,216,699. Bussonnet discloses a packing member 5 substantially as claimed for retaining a root 3 of a blade 4 in a fan in a curved socket 2 arranged on a periphery of a rotor disk 1, the blade having an unnumbered/not shown convex flank and a concave flank (because the packing is curved, the blade flanks are convex and concave), the packing member being in a form of a curvilinear plate constituted by a metal structure having hollowed out portions filled in by overmolding with a semi-rigid elastomer material 13, 14, 15, 18, 19, on a lateral edge near 13 situated on a concave side of the blade between an upstream end zone 10 and a downstream end zone 11, which end zones are of entirely metal structure, on a lateral edge near 14, 15 situated on a convex side of the blade between the end zones and a central zone 12, that is essentially of metal structure, and on two top portions near 18, 19 of the packing member that extend between the two elastomer lateral edges on either side of the metal

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central zone, with the central zone being set back (at 13 in figure 4) relative to a profile of the socket.

However, Bussonnet does not disclose that the metal structure further comprises a bottom recess extending over its entire surface between the upstream end zone and the downstream end zone.

Schoenborn shows a blade retaining arrangement whereby blades 10 are retained in sockets 30 in a rotor disk 22, by a packing member 61 having a bottom recess 61 extending over its entire surface between an upstream end zone and the downstream end zone, for the purpose of allowing attachment of the blades to the rotor disk via key members 52.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the packing member 5 of Bussonnet such that the metal structure comprises a bottom recess extending over its entire surface between the upstream end zone and the downstream end zone, and to attach the blades of Bussonnet to the rotor disk by key members that fit into the bottom recess (in place of the unnumbered bolted connections disclosed by Bussonnet), as taught by Schoenborn, for the purpose of allowing attachment of the blades to the rotor disk via key the members. Although the packing member of Schoenborn is straight and includes the straight bottom recess and straight key members, it would have been obvious to adapt the teachings of Schoenborn to the curved packing members of Bussonnet, because one of ordinary skill in the art would have recognized the teachings of Schoenborn are applicable to any

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packing members of any shape. Note that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Claims 5 and 8 are also rejected under 35 U.S.C. 103(a) as being unpatentable over Bussonnet 5,820,347 in view of Tempere 6,447,253. Bussonnet discloses a packing member 5 substantially as claimed for retaining a root 3 of a blade 4 in a fan in a curved socket 2 arranged on a periphery of a rotor disk 1, the blade having an unnumbered/not shown convex flank and a concave flank (because the packing is curved, the blade flanks are convex and concave), the packing member being in a form of a curvilinear plate constituted by a metal structure having hollowed out portions filled in by overmolding with a semi-rigid elastomer material 13, 14, 15, 18, 19, on a lateral edge near 13 situated on a concave side of the blade between an upstream end zone 10 and a downstream end zone 11, which end zones are of entirely metal structure, on a lateral edge near 14, 15 situated on a convex side of the blade between the end zones and a central zone 12, that is essentially of metal structure, and on two top portions near 18, 19 of the packing member that extend between the two elastomer lateral edges on either side of the metal central zone, with the central zone being set back (at 13 in figure 4) relative to a profile of the socket.

However, Bussonnet does not disclose that the metal structure further comprises a bottom recess extending over its entire surface between the upstream end zone and the downstream end zone.

Tempere shows a blade retaining arrangement whereby blades 2 are retained in sockets 4 in a rotor disk 1, by a packing member 5 having a bottom recess 6 extending over its entire surface between an upstream end zone and the downstream end zone, for the purpose of allowing attachment of the blades to the rotor disk via spring members 7.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the packing member 5 of Bussonnet such that the metal structure comprises a bottom recess extending over its entire surface between the upstream end zone and the downstream end zone, and to attach the blades of Bussonnet to the rotor disk by spring members that fit into the bottom recess (in place of the unnumbered bolted connections disclosed by Bussonnet), as taught by Tempere, for the purpose of allowing attachment of the blades to the rotor disk via key the members. Although the packing member of Tempere is straight and includes the straight bottom recess and straight spring members, it would have been obvious to adapt the teachings of Tempere to the curved packing members of Bussonnet, because one of ordinary skill in the art would have recognized the teachings of Tempere are applicable to any packing members of any shape. Note that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references.

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Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Allowable Subject Matter

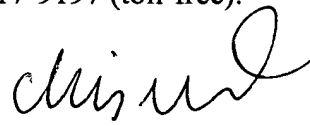
Claims 6 and 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (571) 272-4824. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.V.
December 8, 2005


Christopher Verdier
Primary Examiner
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